

# Broadening Horizons 4

A Conference of young researchers working in  
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University of Torino, October 2011

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# A COMPARATIVE ANALYSIS OF THE CULTURAL INTERACTION BETWEEN THE WESTERN AND CENTRAL AREAS OF ANATOLIA IN THE THIRD MILLENNIUM BC

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## Abstract

According to a comparative study between the archaeological data from the primary settlements and cemetery areas in the western and central Anatolian areas in the Early Bronze Age, a cultural interconnection can be inferred. The genesis of that interactive process has been analysed in the light of the clear stylistic uniformity found in the production of metal objects in the sites of western and central Anatolia, and appears to be related to a trade in metal. This trade extended from the central regions of the Anatolian plateau and of the Circumpontic region as far as the Aegean. This study will seek use a comparative analysis of metal tools and primary weapons to find reasons for this cultural interdependence between these two areas.

KEYWORDS: EARLY BRONZE AGE, ANATOLIA, CIRCUMPONTIC AREA, CULTURAL INTERCONNECTION, METAL EAPONS.

This paper is an extract of a preliminary study regarding the dynamics of cultural interaction between the western and central areas of Anatolia in the third millennium BC. Although this interactive process manifests itself in different aspects of material culture, its genesis has been analysed in the light of the clear stylistic uniformity found in the production of metal objects in the sites of western and central Anatolia in the period in question. The choice of this field of analysis is motivated by the hypothesis that the metal trade was one of the earliest vehicles for the aforementioned cultural interaction. In line with this theory, the Bronze Age settlements of western and central Anatolia have been considered catalysts in the flow of raw materials from the central regions of the plateau and the Circumpontic region. A connection with the provinces of the northern coast of the Black Sea, which, as will be discussed on the grounds of the data analysed, has been reached on the grounds of a stylistic comparison of metallurgic production.

One of the principal problems connected to this study is in the definition of its chronological parameters. Conventional chronology dates the beginning of this interaction to Early Bronze Age III. Archaeological data from the recent excavations in the area of Eskişehir and along the Sangarius, as well as at the plain of Elmalı in western Anatolia, appears to cast some doubt on this scenario. From Early Bronze II, the supposed appearance in these regions of large settlements which received the flow of raw materials from regions to the east would seem to suggest that this interaction began in the first half of the third millennium BC

## 1. DEFINITION OF THE TWO AREAS: 'INLAND WESTERN ANATOLIA' AND 'CENTRAL ANATOLIA'

During the first quarter of the third millennium BC, the stylistic autonomy of western metalwork and pottery production is the chief indication of independence for the districts within the bend of the Kızıl Irmak river from the strip of land known as 'Inland Western Anatolia'<sup>1</sup> which from the

westernmost point of Lake Iznik reaches to the plain of Elmalı. Although, as will be deduced on the grounds of local metal production, the theory of an autonomous central Anatolian culture which interacted with western settlements in the Early Bronze Age II is not without foundation (Figure 1).

The definition of 'Inland Western Anatolia' as an autonomous and culturally homogeneous entity is based on the uniformity of the metallurgical production. This is seen through the formal comparison of the so-called *razors*,<sup>2</sup> metal sheet diadems,<sup>3</sup> and of the short daggers with twisted tang,<sup>4</sup> found in the cemetery areas of Karataş-Semayük, Kaklık Mevkii, Sarıket, Küçükhöyük, and also by the independence of pottery forms.<sup>5</sup> The emphasis on the uniformity of the archaeological material from the inland western districts of Anatolia, through which their full cultural independence during the Early Bronze Age II can be observed, rests expressly on the analytical study of the dynamic at the root of the theorized interchange between western and central Anatolia.

## 2. COMPARATIVE ANALYSIS OF THE METAL-WORKING INDUSTRY AS A CHRONOLOGICAL PARAMETER FOR THE DEFINITION OF THE PROCESS OF INTERACTION

Despite the incomplete nature of the data, this process of interaction develops as hypothesized through the standardization of metallurgy production. The uniformity of the form of metal tools and weapons, such as the typology of

<sup>2</sup> Mellink 1966, 70, pl. 77, fig. 19; 1967, 71, Grave No. 152, pl. 77, fig. 16; Grave No. 156, pl. 77, fig. 18; 1968, 72, Grave No. 355, pl. 74, fig. 20; Efe *et al.* 1998, Grave No. 8, fig. 71.152; Seeher 1992, Grave No. 421, fig. 5, 3.

<sup>3</sup> Seeher 1992, Grave 350, fig. 7, 2; Güngör and Seeher 1991, Grave No. 11, pl. 15.11; Grave No. 42, pl. 15.12; Grave No. 86, pl. 15.13; Grave No. 98, pl. 15.14; Grave No. 124, pl. 15.15; Grave No. 125, pl. 15.16; Grave No. 150, pl. 15.17; Mellink 1969, 73, pl. 57.

<sup>4</sup> Mellink 1966, 70, Trench 18 pl. 77, fig. 19; Güngör and Seeher 1991, Grave No. 26 A, pl. 15.19; Lloyd and Mellaart 1962, fig. F 9.

<sup>5</sup> For the distribution of Early Bronze II pottery groups in western Anatolia see Efe 2002, 49-65.

<sup>1</sup> Efe and Fidan 2006, 16.

the short dagger with a tang with a curved end from the tomb of Resuloğlu<sup>6</sup> which appears to recall the line of the examples from the western necropolis, is here employed as a parameter for the presumed cultural integration between the areas of western and central Anatolia in the third millennium BC. Nevertheless, the absence of a stratigraphic and topographic record providing a chronological sequence for many types of object (especially those of the central areas), limits this study to an exercise indicative of the cultural connections which emerge from such a comparison. A primary example concerning this problem is represented by the comparison between crescent axes. The most ancient example of this type is represented by the axe found in tomb no. 100 of the necropolis of Sariket/Demircihüyük<sup>7</sup> dating to the period of transition between Early Bronze I and II. The closest parallels to this weapon, however, are three examples found during the course of illicit excavations believed to have taken place in the Amasya–Tokat–Göller area of central Anatolia, and dated to Early Bronze Age III a-b.<sup>8</sup> There is a stylistic uniformity between the example from Sariket (Figure 2a)<sup>9</sup> and one of the three axes mentioned above from Horoztepe (Figure 2b).<sup>10</sup> This is seen in the shape of the blades and also in the lateral appendages which end at acute angles and which can both be placed in the same time period (Figure 2).

On the grounds of this comparison, and were it to be corroborated by other information, the date for the presumed interaction could reasonably be pushed back to Early Bronze II. Within the limits of the discussion regarding the chronology of the various metal weapons in the two areas, this problem makes itself felt further in the versions of the daggers with double riveting discovered at the necropolis of Bayındırköy<sup>11</sup> (Figure 3a), and in the Royal Tomb K of Alaca Höyük (Figure 3b),<sup>12</sup> and also through the *Pilzknaufkeulen* catalogued in the necropolis of Sariket (Figure 4a)<sup>13</sup> and in the Royal Tomb B of Alaca Höyük<sup>14</sup> (Figure 4b), plus a decontextualized example from Alaçam–Soğukçam (Figure 4c)<sup>15</sup> in the district of Amasya–Tokat–Göller (Figure 3).

The combination of these types of weapon, in fact, leads to a reflection on their conventional chronology. Despite the stylized form of the ‘pummels’ of the *Pilzknaufkeul* of tomb B (Figure 4b), if seen next to the more squared-off lines of the spheres on the mace head/sceptre of tomb 132 at Sariket (Figure 4a), it seems to confirm a dating for this object to Early Bronze III a-b.<sup>16</sup> The same comparative pro-

cess appears to place the sample from Alaçam–Soğukçam (Figure 4c), also dated to the Early Bronze III, in the same time frame as the example of the necropolis at Sariket. If confirmed, this is a theory which would justify the idea of a close connection between the regions of the central plateau and those of the inland western regions from Early Bronze II (Figure 4).

However, this interconnection would appear to be less obvious in the context of the similarity between the double-riveted dagger blade from tomb K at Alaca Höyük (Figure 3a) and its parallels from the site at Bayındırköy (Figure 3b).

In fact, the grave goods of the Yortan (Figure 3a; Figure 5b) vary between the first and the last quarters of the third millennium BC and, other than these daggers and the axe with the bell-shaped peen<sup>17</sup> found in tomb 494 at Sariket (Figure 5a),<sup>18</sup> they do not seem to show strong links with the regions of the central plateau as much as with those of ‘inland western Anatolia’. Moreover, the distribution of the bell-shaped axe introduces another discussion regarding the expansion of the material culture of the inland western area during the Early Bronze Age towards the so-called *buffer zone* to the east,<sup>19</sup> The indications of this diffusion can be seen in a parallel to this weapon, found at the site of Polatlı (Figure 5c),<sup>20</sup> probably from the grave goods of a burial, and in the partial uniformity of pottery production in its phases Ia (corresponding to strata I-IV) and Ib (corresponding to strata V-XI)<sup>21</sup> and at Asarcık levels I-V,<sup>22</sup> seen in the strata of transition between the Late Chalcolithic and Early Bronze I at Demircihüyük (Phases D-G),<sup>23</sup> Küllüoba (Phases 2-6),<sup>24</sup> Kaklık Mevkii<sup>25</sup> and late Early Bronze II at Demircihüyük (Phases H-Q).<sup>26</sup> The brief excavation campaign carried out at Polatlı<sup>27</sup> did not provide further data for a more accurate evaluation of the dynamic behind the infiltration of these western elements nevertheless, it is not unfounded to identify one of the reasons behind the presumed expansion in the proximity of this site to the mineral area of Yapraklı.<sup>28</sup> Indeed, this theory develops alongside the indication of the central districts as a culturally autonomous entity. The independence of this entity can be seen through

2006, pp. 127-135).

<sup>17</sup> Kâmil 1982, fig. 88.

<sup>18</sup> Seeher 2000, fig. 49, b.

<sup>19</sup> This term is used to refer to the narrow strip of land opposite the Kızıl Irmak which presents an independent cultural *facies*, characterized by autonomous pottery production known as *local pottery* and present in the sites of Ahlatlıbel (Zübeyr 1934, fig. 13), Etiyokuşu (Kansu 1940, fig. 74-75), Asarcık Hüyük (Orthmann 1966, fig. 1-8) and Polatlı (Lloyd and Gökçe 1951, fig. 11), tracing a line between the two regions.

<sup>20</sup> Lloyd and Gökçe 1951, fig. 14.13.

<sup>21</sup> For more on the question regarding the internal stratigraphy of the settlement phases of Polatlı: Cf. Orthmann 1963, 28-30.

<sup>22</sup> Orthmann 1966, abb. 1-7.

<sup>23</sup> Efe 1988, 89-108.

<sup>24</sup> Efe and Ay 2000, 32, fig. 9; Form 3 are found in Lloyd and Gökçe 1951, fig. 6: 1, 20, 23, 25; Form 4 in Lloyd and Gökçe 1951, fig. 6: 15, 19, 21; Form 5 and 6 in Lloyd-Gökçe 1951, fig. 6: 9-11, 14, 16.

<sup>25</sup> Efe *et al.* 1995, 375-376, fig. 25: 81-83.

<sup>26</sup> Efe 1988, 89-108.

<sup>27</sup> The excavation took place over the course of just eighteen days (Cf. Lloyd and Gökçe 1951, 21).

<sup>28</sup> De Jesus 1978, fig. 1.

<sup>6</sup> Yıldırım 2006, fig. 15, d.

<sup>7</sup> Seeher 2000, Grave No 100, fig. 23, f.

<sup>8</sup> Tezcan 1960, pl. XX, 2-4. Cf. also Özgüç-Akok 1958.

<sup>9</sup> Seeher 2000, abb. 23, f.

<sup>10</sup> Tezcan 1960, pl. XX, 2.

<sup>11</sup> Bittel 1956, fig. 1.1.

<sup>12</sup> Seeher 2000, abb. 23, f.

<sup>13</sup> Seeher 2000, Grave No 132, fig. 25, a.

<sup>14</sup> Arık 1937, pl. 137.

<sup>15</sup> Zimmermann 2006, fig. 1.6.

<sup>16</sup> Although the dating of the tombs at Alaca Höyük is still a point of discussion, I have chosen here to follow the conventional chronology which dates it between Early Bronze III a-b and Middle Bronze I, as documented by Mansfeld (Mansfeld 2001, 19-59) and Zimmermann (Zimmermann

local metal-working production exemplified by the differences in the forms of hammer-axes, associated with the burials at Ahlatlıbel (Figure 5g),<sup>29</sup> Resuloğlu (Figure 5e, j)<sup>30</sup> Kalınkaya-Toptaştepe (Figure 5d, f),<sup>31</sup> Horoztepe (Figure 5k)<sup>32</sup> and Amasya-Tokat-Göller district (Figure 5h-i),<sup>33</sup> with respect to the western bell-shaped form. It can also be seen in the ritual practice of bending the metal parts of the grave goods, such as daggers,<sup>34</sup> at the moment of their burial, as well as wrapping metal axes in cloth.<sup>35</sup> This was a tradition which was also common in the settlements towards the coast of the Black Sea, as can be observed in tomb 'A' at Horoztepe.<sup>36</sup> Moreover, another element which seems to suggest discontinuity is the use of the *kasten* building technique in the fortifications around Ahlatlıbel,<sup>37</sup> which is quite different from the *böschung* structure proper found in the defensive systems of the western regions<sup>38</sup> (Figure 5).

### 3. ELEMENTS IDENTIFYING THE INFILTRATION OR SUPERIMPOSITION OF CULTURAL ELEMENTS FROM THE CIRCUMPONTIC AREA

One of the primary indicators for an independent cultural *facies* belonging to the provinces of central Anatolia is represented, despite its supposed origin in the northern Caucasus, of the chamber burial type at Alaca Höyük and Horoztepe. This distances itself from the usual burial in *pithos*, *steinkistengrab* and *pit* which are common throughout Anatolia. According to this theory, upheld by many scholars including Sagona,<sup>39</sup> the Caucasian provenance of the burials at Alaca Höyük and Horoztepe depends on architectonic similarities between these tomb chambers and the tumuli at Bamut (tomb no. 2),<sup>40</sup> Majkop culture,<sup>41</sup> Kiketi (tomb no. 7)<sup>42</sup> and Elar (tomb no. 10),<sup>43</sup> Kura-Araxes culture, even if they do not develop with an upper tumulus structure as is usually seen in the case of the *kurgan*. Comparisons on stylistic grounds and of the ritualistic arrangement of the metal funerary goods also point to a connection with the Caucasus.

Contextually with the first of these cases, the tombs at Alaca Höyük each contain individual burials (except for tomb C, which houses three burials). In shallow rectan-

gular troughs clad with a frame of wooden beams and an east-west orientation in which the body was resting on its right side in a contracted position and facing south. This echoes the necropoleis of Bamut, Kiketi, and Elar. The second parameter, moreover, on which the hypothetical connection between funerary traditions in central Anatolia and the Caucasus is founded, is indicated by the partial similarities between the grave goods, as seen in the ogival shape of the spears/daggers from Horoztepe (Figure 6a-b)<sup>44</sup> and from tomb no. 8 at Eliste (Figure 6c),<sup>45</sup> and from the decorative nail head motif, seen in the plates/drop medallions from Horoztepe and Trialeti.<sup>46</sup> Even if the placing of objects indicating social status and the sex of the deceased in the tombs of Alaca Höyük and Horoztepe marks a break with Caucasian funerary tradition, *the mode of burial, the scale of wealth, the accompanying cultic paraphernalia, and the evidence of animal sacrifice clearly point to a Circumpontic influence* (Figure 6).<sup>47</sup>

Should this hypothesis be confirmed, a further problem would nevertheless emerge regarding the definition of the chronological parameters of this process of the infiltration of Caucasian aspects. From a comparative analysis of different types of metal objects, the forms of which point to a specific area or time period, for example the *razors*, or the *Pilzknaufkeulen* and once again the hammer-axes with a long peen and for which parallels can be found in the cultures of Martkopi/Ulevari (Figure 5r)<sup>48</sup> and Koreti (Figure 5s)<sup>49</sup> such as Velikent (Figure 5)<sup>50</sup> in the Caucasus and in the regions opposite the mouth of the Dnepr and the bay of the Donec in the Ukraine,<sup>51</sup> a date of Early Bronze II can be put forward for the interaction between the districts of central Anatolia and the Circumpontic area.

Regarding the first series of objects, the so-called *razors* common in all of the provinces of 'Inland Western Anatolia', a parallel with the site at Martkopi<sup>52</sup> can be noted, and a second at the settlement of Michajlovka along the Dnepr.<sup>53</sup> The absence, however, of the provenance of a solid stratigraphic context for the examples from the northern Black Sea, together with the uncertainty regarding the chronology of the post Kura-Araxes<sup>54</sup> cultures, does not allow the determination of these objects and the calibrated western models as possibly contemporaneous. The same problem recurs when considering the axe with the long peen the presence of which is attested along the northern coast of the Black Sea in the third millennium BC in the settlements of Krivoj Rog (Figure 5p)<sup>55</sup> and Michajlovka (Figure 5q),<sup>56</sup>

<sup>29</sup> Zübeyr 1934, Grave No. 18, fig. 4.

<sup>30</sup> Yıldırım 2006, fig. 14, a-b.

<sup>31</sup> Zimmermann 2007, Grave No. M1-73, fig. 9, a-b.

<sup>32</sup> Tezcan 1960, pl. XXVII, fig. 1.

<sup>33</sup> Özgüç 1980, pl. V, 1-2.

<sup>34</sup> Yıldırım 2006, fig. 15, a-c.

<sup>35</sup> Zimmermann 2007, 18.

<sup>36</sup> Özgüç and Akok 1958, fig. 2.

<sup>37</sup> Zübeyr 1934, fig. 1.

<sup>38</sup> De Vincenzi 2004, 309-321.

<sup>39</sup> Sagona 2004, 475-538.

<sup>40</sup> Sagona 2004, fig. 6.1.

<sup>41</sup> The Majkop culture is conventionally dated between the end of the fourth millennium and the late third millennium BC, although other scholars have suggested a different time frame: 3500-2200 a.C. (Sagona 2004, 477, footnote no. 6).

<sup>42</sup> Sagona 2004, fig. 1.1.

<sup>43</sup> Sagona 2004, fig. 1.2.

<sup>44</sup> Özgüç and Akok 1958, pl. VIII, 7 and 9.

<sup>45</sup> Sagona 2004, fig. 17.3.

<sup>46</sup> Sagona 2004, fig. 21.9, 7.

<sup>47</sup> Sagona 2004, 484.

<sup>48</sup> Sagona 2004, fig. 16.1.

<sup>49</sup> Sagona 2004, fig. 16.3.

<sup>50</sup> Gadzhiev *et al.* 2000, Collective Catacomb No. 11, fig. 49.

<sup>51</sup> Černych 2003, 34-40, fig. 2,4.

<sup>52</sup> Sagona 2004, fig. 18.4.

<sup>53</sup> Černych 2003, fig. 6.14.

<sup>54</sup> For issues concerning the chronology of the pre and post-Kura-Araxes culture see: Sagona 2004, 477-479.

<sup>55</sup> Černych 2003, fig. 4.12.

<sup>56</sup> Černych 2003, fig. 4.13.



and for its parallels found in Horoztepe (Figure 5I)<sup>57</sup> and in the provinces of Amasya-Tokat-Göller in the Anatolian plateau (Figure 5m, o).<sup>58</sup> The type of objects most able to enrich the thesis of an interaction between Anatolia and the Caucasus which dates to Early Bronze II is the stone *Pilzknaufkeulen* from the collective catacomb no. 11 at Velikent (Figure 4d)<sup>59</sup> along the western bank of the Caspian Sea in Daghestan. This ordinance is, in fact, principally based on the radiometric examination (the analysis of radio-carbon relevant to the grave goods from tomb no. 11 at Velikent were carried out on the remains of the wooden handle of a stone axe which gave a date between 2851-2367 BC [2  $\sigma$ , Sample AA 27353]<sup>60</sup> and which seems to confirm a previous radiometric test, carried out in 1994, on the bone remains from tomb no. 1 of Mound V: 2879-2474 BC [2  $\sigma$ , Sample AA 15104])<sup>61</sup> and which would date this burial to between Early Bronze I and II.<sup>62</sup> In line with the information provided by radio-carbon dating and the comparative stylistic study between the sample from Velikent and its counterpart at Sariket, from which it can be deduced that, as for the Caucasian model, the flattened outline, and the object with four protuberances certify its earlier date, it is possible to consider a diffusion of this implement from the Caucasus towards the western edge of the Anatolian plateau during the first half of the 3rd millennium BC.

#### 4. CONCLUSION

In conclusion, the problems which arise from this study are associated with two primary questions: the definition of the chronological parameters concerning the development of the process of cultural interaction being studied here, and the justifications behind this definition.

Comparisons between the types of metal objects have revealed that contact between the two areas seems to have already begun during Early Bronze II, thus lifting the question regarding the origins of this interaction. It is quite plausible that one of the primary factors is indicated by the development of medium-large settlements such as Küllioba,<sup>63</sup> Aizanoi,<sup>64</sup> Bademağacı,<sup>65</sup> Karataş Semayük<sup>66</sup> in 'inland western Anatolia' between Early Bronze I and II. These settlements acted as catalysts for economic activity of smaller satellite sites and for the flow of metals coming from the Anatolian plain. This presumed correlation between the growth of metallurgical production in this period, and the emergence of such settlements seems, moreover, to be confirmed by the topographic uniformity of sites near areas rich in mineral resources, such as Ahlatlıbel.<sup>67</sup> These followed a standard settlement model known as

'Anatolische Siedlungschema' (Figure 7a),<sup>68</sup> specific to the inland western provinces.<sup>69</sup>

The Anatolian settlement model saw inhabitations placed in a megaroid type plan, buildings built one against the other against the inside of a fortification, following a radial plan around a circular or square space. The similarity to the same planimetric uniformity at Pular Sakyol,<sup>70</sup> in north-east Anatolia marks a further point of discussion on the manifestation of relations between the Circumpontic area and the central-western Anatolian area in the first half of the 3rd millennium BC.

The most relevant information regarding this interaction seems to come from the comparison between this settlement model and the so-called *Großsiedlungen* of the Tripol'e culture<sup>71</sup> in Ukraine. Coherent with the sites on the Anatolian side, even the imposing settlements of the Upper Dnepr appear to be constructed following a standard model which requires the arrangement in concentric circles of large rectangular buildings, their external facades staggered to create offsets and indentations (Figure 7b).<sup>72</sup> Although the significant dimensions as well as the thickness of the foundations have suggested two storey buildings with the transversal access to the front vestibule are in clear contrast to the megaroid plan of southern complexes, the building of the inhabitations one against the other, and the radial arrangement and the placing of fire-places at the end of the short wall of the main hall,<sup>73</sup> demonstrate a close analogy between the two cultures an analogy which is likewise highlighted by the presumed contemporaneous nature of the time line with respect to the culture of Tripol'e (Figure 7b-c).

In line with the preliminary stage of this study, further theories on the grounds of the dynamics of interaction between the central-western regions of Anatolia and the region of the Caucasus in the third millennium BC cannot be put forward; nevertheless, elements have come out which appear to attest to a network of interaction or commercial exchange which regard this area from the beginning of the Early Bronze Age, and which require further examination (Figure 7).

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<sup>68</sup> Korfmann 1983, 222-241.

<sup>69</sup> Although Korfmann's theory is not confirmed by ethnographic comparisons, the uniformity of the settlement model seen at the sites in "inland western Anatolia" of Ilıpınar Höyük Phase VI (Roodenberg *et al.* 1989, 90-92), Hacılartep Phase I (Eimermann 2004, 25), Beşik-Tepe (Korfmann 1989, 473-481), Demircihöyük Phases D-M (Korfmann 1983), Küllioba Phases 5-2 (Efe and Fidan 2008, fig. 1), Karaoğlan Mevkii (Efe *et al.* 1998, fig. 2), Keçiçayırı (Efe and Fidan 2010, fig. 5), Karataş Semayük Level V (Mellink 1972, 76, pl. 4) and Bademağacı (Duru and Umurtak 2008, pl. 29, 31), it represents, in my opinion, an indisputable fact that support this theory.

<sup>70</sup> Koşay 1976, fig. 118.

<sup>71</sup> Videjko 1995, 45-80.

<sup>72</sup> Videjko 1995, fig. 10.

<sup>73</sup> Videjko 1995, fig. 7.

<sup>57</sup> Özgüç and Akok 1958, pl. VIII, 10.

<sup>58</sup> Özgüç 1978, fig. 87-88; 1980, pl. V, 4.

<sup>59</sup> Gadzhiev *et al.* 2000, fig. 47.

<sup>60</sup> Kohl 2003, 18.

<sup>61</sup> Gadzhiev *et al.* 1994, 147.

<sup>62</sup> Gadzhiev *et al.* 2000, 105-106, Tab. 1.

<sup>63</sup> Efe and Ay 2008, 67-80, fig. 1.

<sup>64</sup> Lochner and Ay 2001, 269-294, fig. 2.

<sup>65</sup> Duru and Umurtak 2008, 217-250, pl. 29 and pl. 31.

<sup>66</sup> Mellink 1972, 257-261, Ill. 4.

<sup>67</sup> Zübeyr 1934, fig. 1. See also Korfmann 1983, 225, fig. 359.

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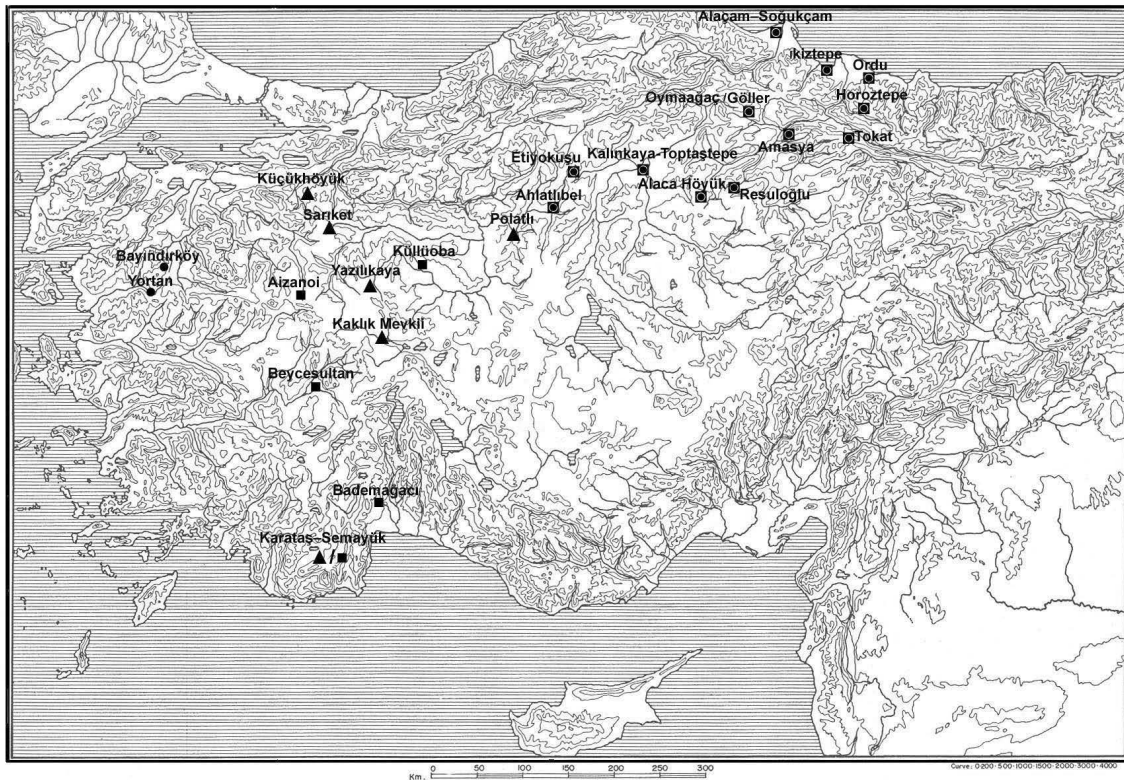


Figure 1 - Distribution of sites and of burial areas in western and central Anatolia in 3rd millennium BC. ■: Major sites (palatine complexes?); ●: Cemetery areas in western Anatolia; ▲: Cemetery areas in “inland western Anatolia”; ◻: Cemetery areas in central Anatolia.

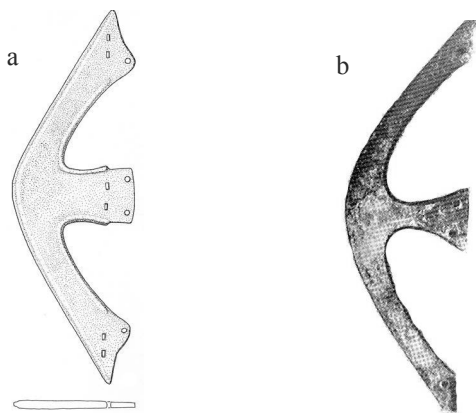


Figure 2 - Crescent axes from a) Sariket Grave No. 7 (Seeher 2000, fig. 23, f); b) Horoztepe (Tezcan 1960, pl. XXIX, 5).

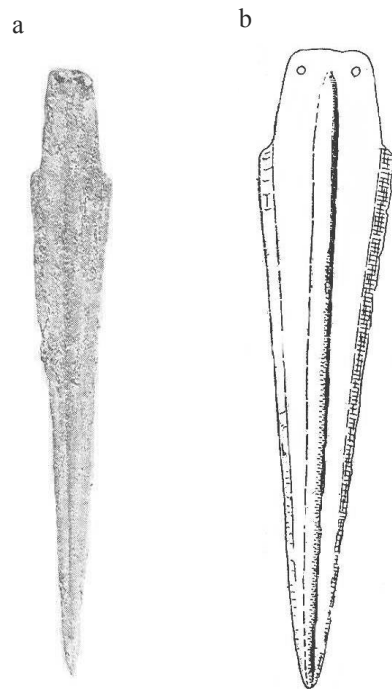


Figure 3 - Double-riveted dagger blade from a) Bayındırköy (Bittel 1956, fig. 1.1); b) Alaca Höyük Royal Tomb K (Koşay 1951, pl. CLXXXIII, 2).

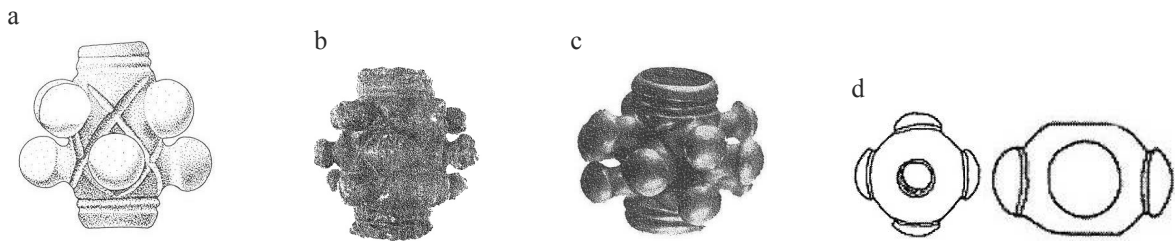


Figure 4 - Pilznaufkeulen comparative analysis: a) Sariket Grave No 132 (Seeher 2000, fig. 25, a); b) Alaca Höyük Royal Tomb B (Koşay 1951, pl. CLXXXIII, 2); c) Alaçam-Soğukçam (Zimmermann 2006, fig. 1.6); d) Velikent Collective Catacomb No. 11 (Gadzhiev *et al.* 2000, fig. 47).

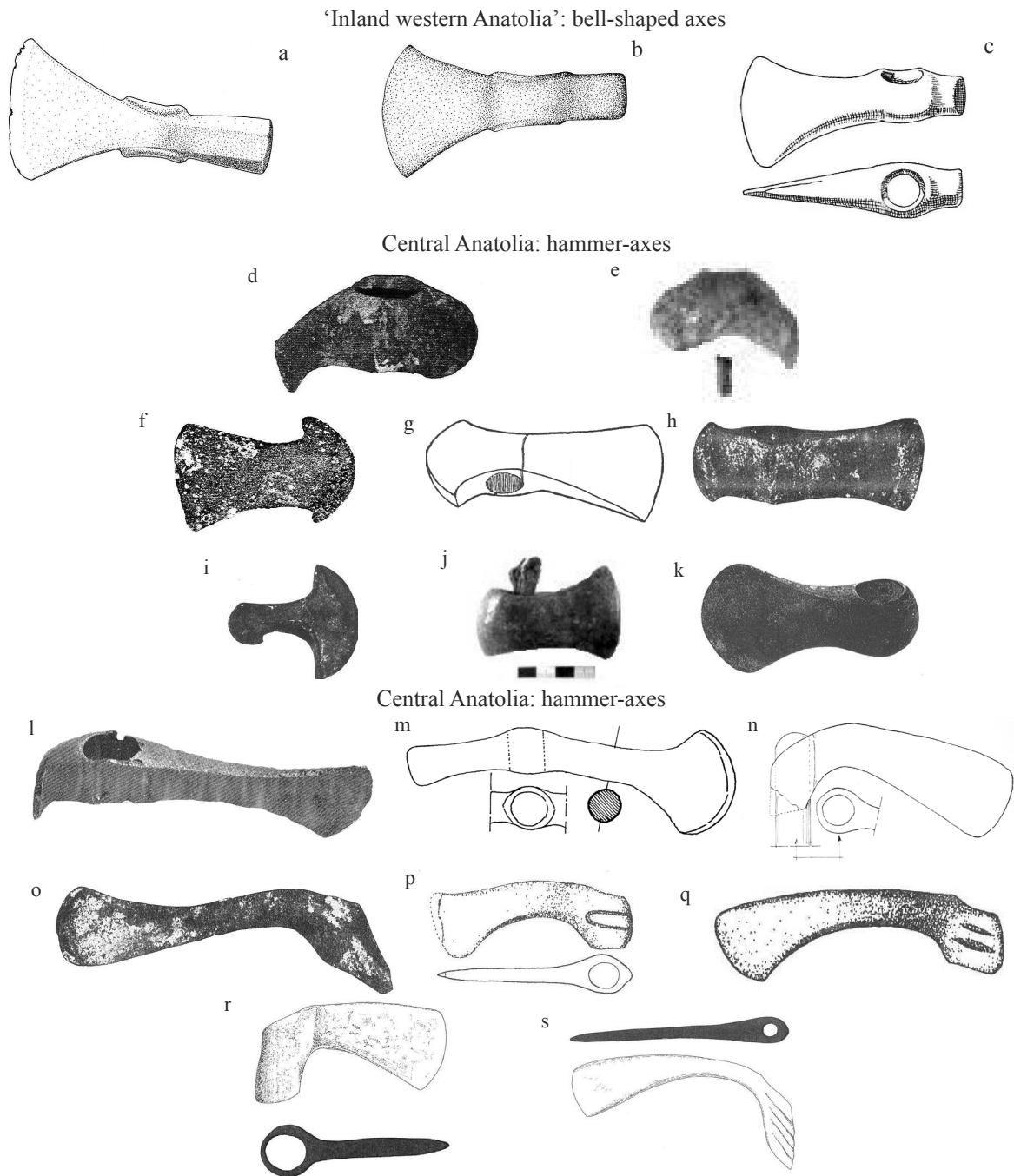


Figure 5 - Different typologies of metal axes in Anatolia and Circumpontic area in the 3rd millennium BC.

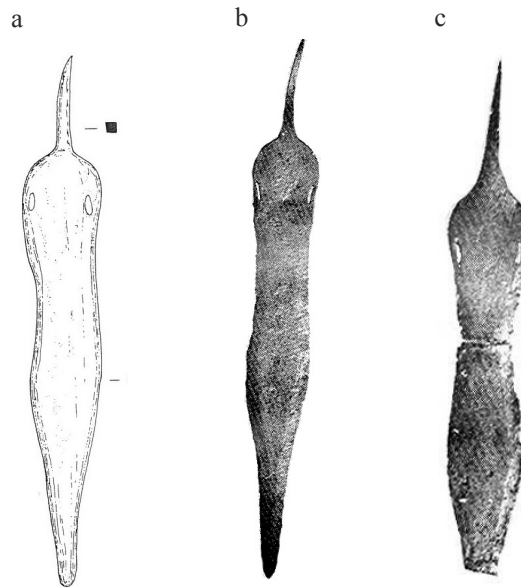


Figure 6 - Ogival spears/daggers: a-b) Horoztepe (Özgüç-Akok 1958, pl. VIII, 7, 9); c) Eliste (Sagona 2004, fig. 17, 3).

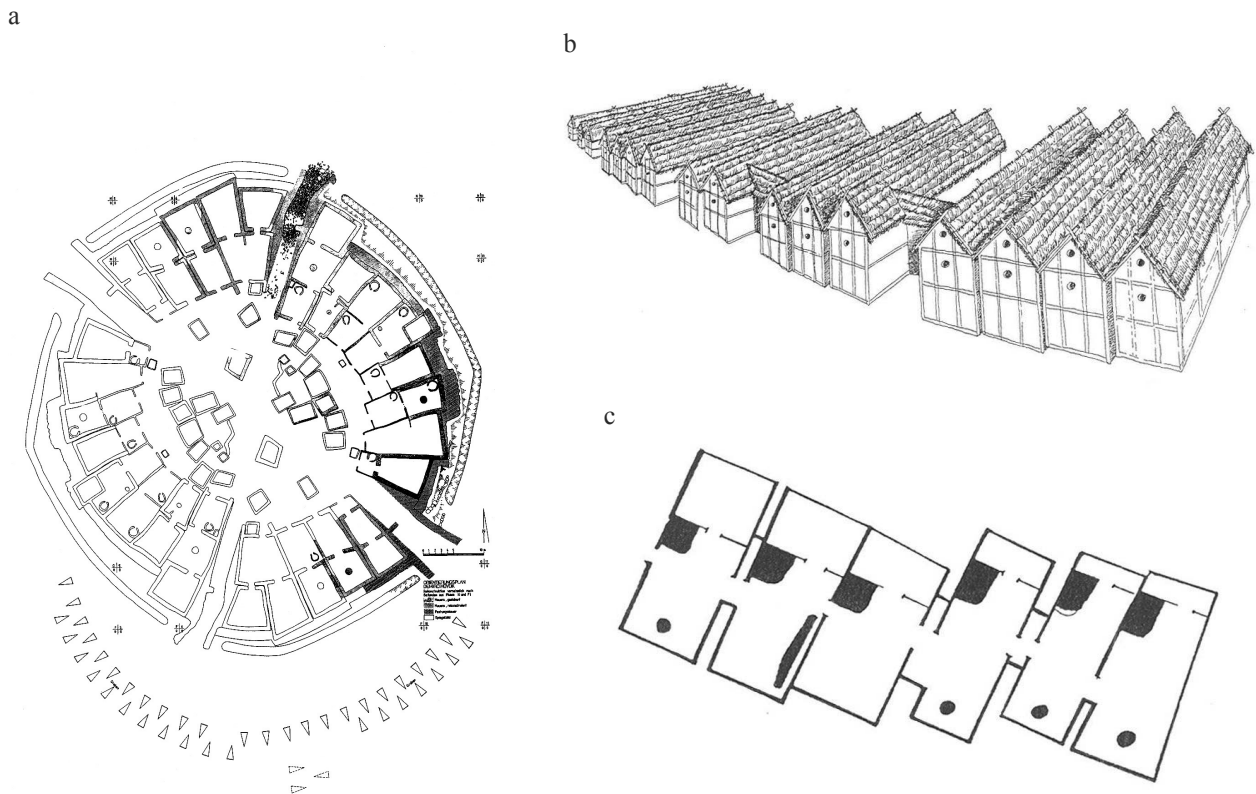


Figure 7 - a) Demircihüyük 'Anatolischesiedlungsschema' (Korfmann 1983, fig. 343); b) Majdaneckoe. Tripol'e culture. Reconstruction of the settlement model (Videjko 1995, fig. 10); c) Majdaneckoe: Tripol'e culture. Reconstruction of the upper internal floor (Videjko 1995, fig. 7, b).